

What is claimed is:

1 (currently amended). A system comprising:

2 a component subject to expansion and contraction as a function of
3 temperature, the component comprising a material having a predetermined
4 thermal expansion characteristic over a temperature range;

5 a temperature sensor thermally responsive to the component for sensing
6 a current temperature of the component, wherein the temperature sensor is one
7 of affixable to and integral with the component;

8 a temperature expansion indicator providing a visual indication of
9 temperature versus distance from a reference point on the component to a point
10 along a range of distances from the reference point, said point corresponding to
11 an extent of expansion and contraction of the component according to said
12 thermal expansion characteristic at a given current temperature of the
13 component; **and,**

14 **wherein the temperature sensor provides a visual indication of the**
15 **current temperature sensed by the temperature sensor by identifying a**
16 **temperature indicating point corresponding to the current temperature on**
17 **a scale of temperatures versus distances, and wherein said expansion**
18 **and contraction of the component according to said thermal expansion**
19 **characteristic substantially correspond spatially, at the current**
20 **temperature, to a location of the temperature indicating point along said**
21 **scale of temperatures versus distances.**

1 2(currently amended). The system of claim 1, wherein the temperature
2 sensor **comprises an indicator having spaced areas that are activated to**
3 **identify the current temperature and is referenced to a distance**
4 **corresponding to said expansion and contraction as a function of**
5 **temperature.** ~~and the expansion indicator are integrated with the component,~~
6 ~~such that the temperature sensor provides a visual indication of the current~~
7 ~~temperature sensed by the temperature sensor in a temperature range, and a~~

~~distance scale provides an expansion of said component relative to the
reference point, in the temperature range.~~

3(currently amended). The system of claim 1, wherein the
temperature sensor comprises an indicator ~~with an indicated position~~ that
moves accordingly to identify the current temperature and is referenced to a
distance corresponding to said expansion and contraction as a function of
temperature.

4(currently amended). **A system comprising:** ~~The system of claim~~
~~2,~~
**a component subject to expansion and contraction as a function of
temperature, the component comprising a material having a
predetermined thermal expansion characteristic over a temperature
range;**
**a temperature sensor thermally responsive to the component for
sensing a current temperature of the component, wherein the temperature
sensor is one of affixable to and integral with the component;**
**a temperature expansion indicator providing a visual indication of
temperature versus distance from a reference point on the component to
a point along a range of distances from the reference point, said point
corresponding to an extent of expansion and contraction of the
component according to said thermal expansion characteristic at a given
current temperature of the component;**
**wherein the temperature sensor and the expansion indicator are
integrated with the component, such that the temperature sensor provides
a visual indication of the current temperature sensed by the temperature
sensor in a temperature range, and a distance scale provides an
expansion indication of said component relative to the reference point, in
the temperature range; and,**

22 wherein the temperature sensor comprises a plurality of indicator zones
23 that are respectively visually activated at threshold temperatures, and wherein
24 the indicator zones are spaced according to the thermal expansion
25 characteristic.

Claim 5 is canceled, without prejudice.

1 6(currently amended). **A system comprising:** ~~The system of claim 5,~~
2 **a component subject to expansion and contraction as a function of**
3 **temperature, the component comprising a material having a**
4 **predetermined thermal expansion characteristic over a temperature**
5 **range;**

6 **a temperature sensor thermally responsive to the component for**
7 **sensing a current temperature of the component, wherein the temperature**
8 **sensor is one of affixable to and integral with the component;**

9 **a temperature expansion indicator providing a visual indication of**
10 **temperature versus distance from a reference point on the component to**
11 **a point along a range of distances from the reference point, said point**
12 **corresponding to an extent of expansion and contraction of the**
13 **component according to said thermal expansion characteristic at a given**
14 **current temperature of the component;**

15 **wherein the temperature sensor provides a temperature readout of**
16 **the current temperature of the component and a distance scale provides a**
17 **pattern of distance versus temperature according to said thermal**
18 **expansion characteristic, and wherein the current temperature is**
19 **referenced to a point on the distance scale; and,**

1 wherein the readout is connected to a corresponding point on the
2 distance scale by graphic indicia.

1 7(currently amended). A system comprising: ~~The system of claim~~

2 ~~2,~~

3 a component subject to expansion and contraction as a function of
4 temperature, the component comprising a material having a
5 predetermined thermal expansion characteristic over a temperature
6 range;

7 a temperature sensor thermally responsive to the component for
8 sensing a current temperature of the component, wherein the temperature
9 sensor is one of affixable to and integral with the component;

10 a temperature expansion indicator providing a visual indication of
11 temperature versus distance from a reference point on the component to
12 a point along a range of distances from the reference point, said point
13 corresponding to an extent of expansion and contraction of the
14 component according to said thermal expansion characteristic at a given
15 current temperature of the component;

16 wherein the temperature sensor and the expansion indicator are
17 integrated with the component, such that the temperature sensor provides
18 a visual indication of the current temperature sensed by the temperature
19 sensor in a temperature range, and a distance scale provides an
20 expansion indication of said component relative to the reference point, in
21 the temperature range; and,

22 wherein the visual indication comprises a readout including ~~includes~~
23 a numeric indicia by which the current temperature is referenced to a
24 corresponding point on the distance scale.

1 8(original). The system of claim 4, wherein the temperature indicator
2 zones comprise thermally responsive visually changeable media.

1 9(original). The system of claim 8, comprising a liquid crystal
2 temperature responsive indicator strip mountable along the range of distances

3 from the reference point and having said indicator zones spaced thereon
4 according to the thermal expansion characteristic.

1 10(original). The system of claim 8, wherein the component is a siding
2 panel comprising a polymer, the reference point is a reference position on the
3 panel for receiving a fastener, and the range of distances is placed for
4 comparison between an edge of the panel and an edge of butt jointed adjacent
5 panel, whereby the indicator zones determine a gap dimension between the
6 panel and the adjacent panel at the current temperature.

1 11(original). The system of claim 2, wherein the temperature sensor
2 comprises a plurality of indicator zones that are spaced according to the
3 thermal expansion characteristic and comprise thermally responsive visually
4 changeable media operable to indicate the current temperature by identifying a
5 point representing a corresponding expansion along the distance scale.

1 12(original). The system of claim 11, wherein the component is a siding
2 panel comprising a polymer, wherein the reference point is a reference position
3 or the panel for receiving a fastener for mounting the panel; and the range of
4 distances is placed for comparison between an edge of the panel and an edge
5 of butt jointed adjacent panel, whereby the indicator zones determine a gap
6 dimension between the panel and the adjacent panel at the current
7 temperature.

1 13(original). The system of claim 10, wherein the temperature sensor is
2 referenced to a positioning reference point adjacent to the edge of the panel.

1 14(original). The system of claim 12, wherein the temperature sensor is
2 one of adhesively affixed to the panel temporarily, adhesively affixed to the
3 panel permanently and integrally formed in the panel.

Claims 15-21 are canceled, without prejudice (non-elected).

1 22(currently amended, withdrawn). An article of manufacture
2 comprising: a siding panel, a temperature sensor, and an array of spacing
3 indicators, wherein the spacing indicators correspond to a position of a point on
4 the siding panel at a distance from a remote reference point, which distance
5 changes with thermal expansion and contraction of the panel, and wherein the
6 spacing indicators are configured for a thermal expansion characteristic of the
7 siding panel at temperatures determined by the temperature sensor, **wherein**
8 **the temperature sensor provides a visual indication of a current**
9 **temperature sensed by the temperature sensor by identifying a**
10 **temperature indicating point corresponding to the current temperature on**
11 **a scale of temperatures versus distances, and wherein said expansion**
12 **and contraction of the panel according to said thermal expansion**
13 **characteristic substantially correspond spatially, at the current**
14 **temperature, to a location of the temperature indicating point along said**
15 **scale of temperatures versus distances..**

1 23(withdrawn). The article of claim 22, wherein the temperature
2 sensor and the array of spacing indicators both are one of integral with the
3 siding panel and affixed to the siding panel.

1 24(withdrawn). The article of claim 23, wherein the temperature
2 sensor has at least two temperature indication points, and wherein the
3 temperature indication points are associated by graphic marking with said array
4 of spacing indicators.

1 25(withdrawn). The article of claim 23, wherein the temperature
2 sensor has at least two temperature indication points that are spaced to
3 correspond to the thermal expansion characteristic over a difference between at
4 least two temperatures identified by said at least two temperature indication

5 points, such that the temperature indication points provide said array of spacing
6 indicators.

1 26(withdrawn). The article of claim 23, wherein the temperature
2 sensor and the array of spacing indicators are at different positions spaced
3 apart on said panel.

1 27(withdrawn). The article of claim 26, wherein the temperature
2 sensor is placed at one end of the panel and the array of spacing indicators are
3 placed at an opposite end of the panel, whereby a gap at a joint between two
4 identical said panels can be set by reference to the temperature sensor of one
5 of said panels and the array of spacing indicators of the other of said panels.

1 28(currently amended). A temperature indicator for a siding panel,
2 comprising:

3 a temperature sensor operable to determine a current panel temperature
4 independently of ambient temperature; and,

5 a graphic scale on the siding panel illustrating a corresponding effect of
6 thermal expansion over differences in temperature, the current panel
7 temperature being identifiable as a position on the graphic scale, wherein the
8 graphic scale is placed and configured to show how closely an edge of the
9 panel can be placed to an adjacent surface of an adjacent panel, while
10 avoiding interference over a range of thermal expansion temperatures.